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09/545,691	04/07/2000	Barrie Gilbert	1482-132	2100

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EXAMINER

SOBUTKA, PHILIP

ART UNIT	PAPER NUMBER
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2684

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/545,691
Filing Date: April 07, 2000
Appellant(s): GILBERT, BARRIE

MAILED

JAN 13 2005

Technology Center 2600

Joseph S. Makuch
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed October 7, 2004.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The rejection of claims 15 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,789,799	Voinigescu et al	8-1998
5,307,512	Mitzlaff	4-1994

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Voinigescu et al (US 5,789,799) in view of Mitzlaff (US 5,307,512).

Consider claim 15. Voinigescu teaches an amplifier cell comprising first and second input terminals (Voinigescu, fig 9, RF_{IN} & LO+ and LO-), first and second output terminals (Voinigescu, fig 9, IF+ and IF-), first input stage coupled to the first and second output terminals (Voinigescu, fig 9, Q1,Q2) and arranged to drive the first and second output terminals responsive to a first input signal received at the first input terminal; and a second input stage coupled to the first and second output terminals and arranged to drive the first and second output terminals responsive to a second input signals received at the second input terminal (Voinigescu, fig 9, Q3,Q6). Voinigescu lacks a teaching of the amplifier stages being class AB. Mitzlaff teaches that class AB operation has higher efficiency when constant envelope modulation schemes such as FM are employed. It would have been obvious to one of ordinary skill in the art to modify Voinigescu to use AB stages for higher efficiency when in FM operation.

(11) Response to Argument

Appellant argues that the claim distinguishes over Voinigescu because the term "input stage" has certain specific meaning that would distinguish over Voinigescu's

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mixer-related arrangement. It should first be noted that the appellant's own arrangement, as shown in instant figure 26, is in fact merely an intrinsic part of an broader mixer arrangement, as shown in the entirety of appellant's specification, as is Voinigescu's. The examiner further notes that claims are entitled to the broadest reasonable interpretation. In this case a reasonable interpretation of "stage" is simply an identified subset of a larger circuit, see for example the first and second input stages of appellant's figure 26. It is further noted that the identified stages of Voinigescu are clearly responding to inputs, in this case RF and LO.

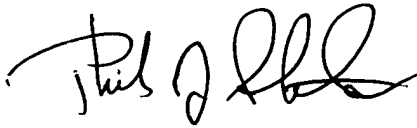
As to appellant's comments regarding the combination with Mitzlaff, it is noted while Mitzlaff may teach that other arrangements beside AB would provide a benefit, Mitzlaff clearly does not teach away from using class AB and in fact Mitzlaff clearly teaches that AB operation provides the desired benefit.

As to appellants closing comments regarding the difference between mixers and input stages, it should be noted that a mixer, particularly Voinigescu's for combining RF and a LO, local oscillator frequency to produce an IF, intermediate frequency, is itself in fact, the input stage to a receiver.

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,



Philip J. Sobutka
January 5, 2005

Conferees

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